

# Anchorage Amateur Radio Club

## General Meeting Friday March 6, 1998

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#### Officers

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Dave Filley WL7CDJ

#### WEB PAGES:

AARC <http://kl7aa.akconnect.com>  
Email to [kl7aa@akconnect.com](mailto:kl7aa@akconnect.com)  
SCRC <http://servcom.com/worcester/scrc.htm>  
EARS <http://ww2.customcpu.com/kl7air/default.htm>  
KL7J <http://www.alaska.net/~buchholz>

Propagation Report Recording 566-1819

*please let us know if there are other club pages or good starting points that should appear here*

#### News Letter Submissions, Information or corrections:

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#### **KL7G CODE PRACTICE SCHEDULE**

Schedule: 7:00am, 10:00am, 4:00pm, 7:00pm, 10:00pm  
AK time, every day  
Frequencies: 3575 KHz and 145.35 MHz  
Sending Speeds: 22 wpm, 15 wpm, 7 wpm

#### **Nets in Alaska:**

The following nets are active in South-central Alaska:  
Alaska Sniper's Net 3.920 MHz 0300 UTC daily  
Alaska Bush Net 7.087 MHz 0500 UTC daily  
Alaska Motley Net 3.933 MHz 0600 UTC daily  
Alaska Pacific Traffic Net 14.292 MHz 1900 UTC daily  
QCWA net 146.97/.37 repeater Sundays 9:00 PM local  
No Name Net 146.85/.25 repeater Sundays 9:00 PM local  
Son of Sideband Net 144.20 USB Mondays 9:00 PM local  
Big City Sideband Net 144.20 USB Tuesdays 8:30 PM local  
ARES net 147.30/.90 Mhz Thursdays at 8:00 PM local  
PARKA net 147.30/.90 Mhz Thursdays at 9:00 PM local

#### **Anchorage Area Repeaters**

KL7AA systems at Flattop Mt., 2,200 ft  
146.34/94 Mhz, 80 watts, autopatch, 100/141.3 Hz PL  
223.34/224.94, 25 watts, no patch, no PL  
444.70/449.70, 25 watts, autopatch, 100/141.3 PL  
KL7ION at Mt. Gordon Lyon 4,700 ft  
147.30/90 Mhz - 80 watts, no patch, no PL  
KL7AA, Mt. Alyeska, 2,400 ft.  
146.16/76 Mhz, 25 watts, no patch, 141.3 Hz PL  
KL7CC, Anchorage Hillside, SCRC club  
146.97/.37 Mhz, autopatch, 103.5 Hz PL  
KL7DJE at Grubstake Peak, 4,500 ft.  
147.09/.69 Mhz, 25 watts, no patch, 100 Hz PL  
444.925/449.925, 10 watts, no patch, 141.3 Hz PL  
KL7JFU, Palmer, MARA club  
146.85/.25, autopatch, no PL  
KL7AIR Elmendorf, EARS  
147.27/.87 no patch, 107.2 Hz PL



## FEATURED THIS MONTH

This month's agenda is more fun than business. We will be having the door prizes and a special prize for the loudest shirt. You must bring your own sun glasses. Along with the usual, we will be discussing dog racing communications and showing some of the latest radio fashions

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**NON-MEMBERS WELCOME:** You don't need to a member of the club to attend the meetings or any other AARC events, although we do encourage any non-member to join our group. See the front cover of this newsletter for the details of meetings.

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### VHF NETS AROUND

All of you new HAMs take note: there are lots of nets and nice folks to visit with. The Son of Sideband Net runs each Monday night at 9:00 PM local on 144.200 Mhz USB with a 6 Meter extension on 50.125 Mhz USB. On Tuesday night, the Big City Sideband Net operates on 144.200 USB at 8:30PM local, then on 50.125 USB at 9:00 PM and finally on 446.00 FM at 9:30 PM. On Thursday the ARES net starts at 8:00 PM on the 147.30/.90 repeater with Amateur News line followed at 9:00 PM by the PARKA net. On Sunday there are two nets at the same time. In Anchorage, the QCWA net runs at 8:00 PM on the 146.97/.37 repeater (103.5 Hz PL) and in the valley the 850 no name net runs on the 146.85/.25 repeater.

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**NEWSLETTER ARTICLES;** All articles from members and interested persons are very welcomed. If you wish to submit any articles, jokes, cartoons, please have it typed or neatly handwritten. It can be submitted on computer disk, faxed, or via Email to the newsletter editor at the address listed on the cover.

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### Regular HAM Gatherings:

\* **Tuesdays, 11:30am to 1:00pm:** Join the gang for lunch and an eyeball QSO at the Royal Fork, Old Seward Hwy. (South of Dimond Center). Although billed as the QCWA lunch, this is open to all and is a good time of fellowship.

\* **Saturdays, 7:30am:** Here is a great way to get started on the week-end come and meet with some of the locals and have a great breakfast at Phillips Restaurant, at the corner of Arctic and International. Great Fun.

## ABACUS RADIO REPAIR

Factory authorized service for: Kenwood, ICOM, Yaesu, Alinco, Amateur radio equipment.

Call Jim Wiley, KL7CC (907) 338-0662

## UPCOMING EVENTS

**March 4: VE Licence Exams.** 6:30pm Carr-Gottstein Building, APU Campus. Bring photo ID, copy of license (if any) and any certificates of completion.

**March 6: AARC** general meeting at 7PM Carr-Gottstein Building APU Campus. Talk in on 146.97 repeater

**March 13: SCRC** general meeting at 7PM RM 220, Business Ed. Bldg., UAA campus. Talk in on 147.57 simplex.

**March 14: VE License Exams,** Hope Cottage Offices, 540 W. International in the Board Room. At 2pm. Be sure to bring photocopy of your license, photo ID, and any certificates of completed elements.

**March 18: VE License Exams,** Eagle River VFW at 7PM. Be sure to bring photocopy of your license, photo ID, and any certificates of completed elements.

**March 27: MARA Club Meeting:** 7PM at MTA's business office in Palmer. All are welcome, refreshments are provided. Talk in on 147.09 repeater or 146.41 simplex.

**April 25 & 26: MARA club Hamfest,** at the Palmer Train Station. Come visit with the folks from the valley and trade some stories and equipment.

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### SPECIAL NOTICE:

The American Red Cross has a new address 235 E. 8th Ave., PO Box 10-1139, Anchorage, AK 99510-1139

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### SPECIAL NOTICE

Peter Bailey, WL7BW, is seeking judges for the Science Fair to be held on March 28 & 29. Peter will have a sign-up sheet at the Friday March 6 meeting.

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## **Stranded part 3**

by Bruce McCormick, WL7YR

Our author is stranded in Kotzebue and was unable to provide the closing episode, so watch for it next month.  
editor



by Steve Mansfield, N1MZA

## Congressional Watch List

**Amateur spectrum protection:** We continue to work with Congressman Michael Bilerakis (R-FL-9th) to craft legislation to provide protection for amateur radio bands against possible future reallocation for auction. We're operating on the principle that economic pressures such as deficit reduction could once again force the FCC to consider expanding auctions to meet congressional revenue targets. Our argument is, you always buy insurance before the house catches fire!

**Local enforcement of CB regulations:** Introduced by Wisconsin Senator Russell Feingold, bill S. 608 would permit state and local government to enforce regulations covering Citizens Band transmitters illegally modified with linear amplifiers. As introduced originally, the bill could have given local authorities *carte blanche* to pass laws that might lead to the harassment of amateurs. But, working with ARRL between sessions, Senator Feingold drafted a new bill so that possession of an amateur license precludes action by state or local government. S. 608 now requires the FCC to provide technical guidance, and includes an appeals process and an explicit acknowledgment of continued federal preemption in these matters. The bill has been reported out of the Senate Commerce Committee. Michigan Representative Vernon Ehlers (R-MI-3rd) introduced a companion bill, HR 2612, in the House. That bill has been referred to the House Telecommunications Subcommittee. It replaces HR 2383, which contained a drafting error.

**"Scanner" legislation:** HR 2369 was introduced by House Telecommunications Subcommittee Chairman Billy Tauzin (R-LA-3rd) following the cellular telephone eavesdropping incident involving Speaker of the House Newt Gingrich. HR 1964 was a similar bill. As introduced, HR 2369 could have outlawed even the unintentional interception of frequencies used by a broad category of radio services called the Commercial Mobile Radio Service (CMRS). This could have affected many types of recreational and public service radio receivers. After months of hard work by a coalition consisting of ARRL, scanner manufacturers, volunteer firefighters and crime prevention interests, the bill was modified to cover only cellular and PCS services. It has been reported out of Subcommittee, and will next go to the House Commerce Committee. There appear to be no Senate companion bills. However, there are related bills such as S. 493, the "Wireless Telephone Protection Act," (p. 15, January 1998 "DC Currents") with which the Tauzin bill could be combined in some form of omnibus legislation. ARRL will continue to monitor this situation closely to ensure that such legislation remains benign.

**Antenna/tower siting legislation:** Bill S. 1350, introduced by Vermont Senator Patrick Leahy, and reported in last month's "DC Currents," got a companion bill in the House of Representatives when Vermont Congressman Bernard Sanders introduces H.R.3016. While there are technical

differences, the Sanders and Leahy bills both have the same intent--to make it easier for states and municipalities to regulate the construction and location of commercial telecommunications, radio or television towers near homes. These bills are likely to meet stiff opposition from the cellular, PCS and broadcast industries. They could even raise concerns from law enforcement and EMS communications, although the effect on that sector is less certain. We'll be watching closely.

**Volunteer liability protection:** HR 1013, introduced by California Representative Anna Eshoo (D-14th), would have increased liability protections for VE's and OO's by putting them under the Federal Tort Claims Act. This bill was introduced at ARRL's request to satisfy the concerns of volunteers threatened with litigation. While these threats were unlikely to succeed, they had a chilling effect on volunteer programs. The bill is no longer believed to be necessary with the passage of the Volunteer Protection Act of 1997 (now Public Law 105-19), which provides federal protections for volunteers.

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## FCC Watch List

**Private sector complaint procedure:** ARRL's petition, RM-9150, for a private sector complaint procedure drew supportive comments when the FCC finally placed it on public notice in August of last year. Continued reorganization within the FCC has kept this petition off the front burner. Under the ARRL plan, Amateur Auxiliary complaints would first be submitted to the FCC's Chief Administrative Law Judge, who would determine whether the complaint warranted further consideration. If so, it would then be assigned to an FCC Administrative Law judge for hearing.

**Antenna siting:** ARRL's Petition for Rulemaking to "enhance" FCC's federal preemption of Amateur Radio antennas (RM-8763) remains a priority for us, if not for the FCC. While FCC's PRB-1 ruling has been of great benefit to amateurs, ARRL seeks to include deed restrictions, covenants, CC&Rs and condominium rules. We also asked the FCC to delineate a reasonable minimum antenna height, and to address issues such as local land-use restrictions, approval processes and costs. In the meantime, the FCC has found itself with several related political hot potatoes concerning satellite receiving, PCS, and broadcast antennas.

**Intelligent Transportation Systems:** A company called ITS America filed a proposal to permit the operation of dedicated 5.850-5.925 GHz short-range, wireless communications links between vehicles and roadside systems (RM 9096). In our reply comments, ARRL argued that the compatibility between amateur uses of the band and the operation of such facilities is unknown and that alternatives have not been adequately explored. We asked that the FCC also consider making the



Amateur Service and the Amateur-Satellite Service primary at 5.825-5.850 and 5.650-5.725 GHz.

**Anti-pilferage devices:** ARRL has filed comments on a Petition for Rulemaking originally filed by a company called Checkpoint Systems, Inc. This petition is to permit operation of anti-pilferage devices on frequencies between 1.705 and 30 MHz. ARRL argued that the devices could create interference to amateur HF operations, and that it may not be possible to identify the source of interference where the signal carries no identification. Even if the devices were identified, ARRL argued, the Commission cannot be relied upon for enforcement, and neither the user of the device nor Checkpoint has an incentive to resolve the interference complaint. No action has been taken on the petition.

**Proposed changes in the 24.00-24.25 GHz band:** The 24-24.05 GHz segment of this band is included in the capabilities of the Phase 3D amateur satellite. A company called Sierra Digital Communications filed a request for a waiver and a Petition for Rulemaking (RM-9189) to use a portion of the band for point-to-point operations under Part 15. ARRL is opposing this request on the basis of possible interference to the Phase 3D satellite. There has been no decision yet.

**RACES rules changes:** ARRL has filed a Petition, RM-9115, to allow expanded RACES/ARES intercommunication and to extend drill time limitations. Two other petitions, RM-9113 and RM-9114, would permit retransmission of emergency weather information from amateur stations operating above 144 MHz with FM emissions, and permit amateurs who are emergency personnel to engage in disaster relief communication on amateur while on paid duty status. These petitions are still pending.

**Medical exemptions for Morse code exams:** In September, ARRL asked the FCC to amend the procedures VEs must follow to establish that a severely handicapped person is unable to pass a Morse code examination before granting examination credit. Under ARRL's petition, the candidate would be required to attempt the 13 or 20 word per minute examination, with necessary accommodations, before being granted the waiver. VECs would request medical information pertaining to the applicant's handicap from the certifying physician. This petition, RM-9196, is still pending.

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#### **DXCC processing status DXCC; ARRL Letter**

The DXCC Desk has announced that the number of unprocessed applications at the end of December 1997 was 556 (53,337 OSLS). The desk received 5038 applications (338,887 QSLs) for endorsements and new awards during the year. This compares with 5621 applications (406,373 QSLs) received during 1996. Applications being sent out at the end of December were received about three weeks earlier. A few applications received prior to that time were in the process of being audited and had not yet been completed.

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#### **FCC rep claims interference fault of Transmitter Portland SBE News**

An FCC representative is reported to have made some strange claims about interference and the commission's role in solving it.

According to the *Portland SBE Newsletter*, Charlene Lagerwerff of the FCC's Wireless Telecommunications Bureau is apparently under the impression that Cross-Modulation and other products of a multi-transmitter site are solely the fault of the transmitting stations. When asked recently about the use of such remedies as circulators, band-pass filters and RF chokes, she reportedly paused a bit and continued on to argue that transmitters are putting out way too much power and interfering with everything.

At the same meeting, James Kaplan, KG7FU, pointed out to her that the ARRL and others have been pushing to make good engineering and design practice the law for receiver manufacturers for years, and that intermodulation is a site management issue, not a regulatory one.

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#### **Where Are All The Yls? Diane P. Ortiz, K2DO**

If anyone asks "Where are all the Yls? I don't hear many on my local repeater," you can tell them we are *definitely* on the air-on HF, SSTV, packet, on the National Traffic System, or participating in ARES and SKYWARN activities. Because we are still the minority in this hobby, our voices are not heard as loudly. But that doesn't mean we aren't active. Except for public-service events and nets, most women tend to gravitate away from the local "high profile" VHF/UHF repeaters. Some say the reason they don't get on the air more often is because it's not convenient to their work and family schedules. Others say they're not interested in the topics of conversations in progress, or don't feel they can knowledgeable contribute to the discussions.

Most mention a negative experience with malicious interference. Malicious interference is a major factor in discouraging Yls as well as new HAMs, and is prevalent in rural areas as well as major cities. It hasn't kept Yls away from ham radio, however, and many have focused their attentions on other aspects of the hobby.

Vick Tuttle, WA1QCQ, of Barrington, New Hampshire, finds SSTV exciting. She's been on this mode for about 2-1/2 years, but says she hasn't heard many other Yls. Vicky is trying to get the word out that SSTV is a fun way to communicate. Her web page at <http://www.mv.com/ipusers/bvtut/bvhome> has a large section on SSTV with photos of many local and DX stations. She has a listing popular SSTV frequencies and links to other YL and SSTV pages. You can use these links to get information on computer programs and find out more about



SSTV operations all over the world. Vicky says she's found her presence on 20 meters has changed the picture content considerable (e.g. less nudity!) and she feels that more female HAMs could help "educate" some of the predominantly male SSTV operators. "We can't rate the picture coming down the screen until it's too late to stop it," she wrote me in a recent e-mail. "If we get more YLs and younger HAMs active in this mode, the content of pictures would improve a great deal!"

#### 1999 YLRL Convention

LARA is hosting the next YLRL convention in conjunction with the YL Radio Club of Los Angeles, one of the oldest YL clubs in the United States. It's scheduled for July 30, 31 and August 1st, 1999, onboard the *Queen Mary*, which recently celebrated its thirtieth year in Long Beach, California. The ship has a ham station, W6RO, and LARA member Marion Kalan, KE6NIV, is one of the many local HAMs who keep the "Wireless Room" operational. The convention may seem a long way off, but according to a report heard on the Ironing Board Net (a regular YL net Tuesdays at 1800 UTC on 7.233 Mhz), the New Zealand and Australian YLRL members are already planning their trips to America. (Another 40 meter YL net is held Fridays at 1900 UTC, same frequency, with Irma, K6KCI, as net control.) Many fun events are being planned. Make sure to mark the dates on your calendar.; There are blocks of rooms available on the ship, but they are limited and some reservations have already been made. Form more information contact convention chairwoman, Martha Barron, KA6TYO, at [marthaabar@aol.com](mailto:marthaabar@aol.com).

#### Active YLs--Of All Ages!

Many YLs enjoy contesting, including Rebecca "Becky" Rich, KB0VVT, from Rayton, Missouri. She passed her Amateur Extra exams at 8 years old (last March) and she said she really likes participating in contests. I worked Becky in the ARRL phone Sweepstakes last November. She said that was the first contest she worked and he wants to get her WAS award.

Jacky Tilly, KK5NM. (wtilly@Aacadian.net) is putting together a series of articles on women in Amateur Radio for her club newsletter in Opelousas, Louisiana. She said, "I would like to educate the male HAMs in the area about the contributions women HAMs make to the hobby." Jacky is looking for articles and books with historical information about YLs in Amateur Radio and would appreciate any leads.

This is just a sampling of the many facets of Amateur Radio YLs are active in. The hobby has much to offer and YLs are taking advantage of it. Don't let anyone tell you otherwise!

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#### Some Imponderables For Your Consideration

If a man is standing in the middle of the forest speaking and there is no woman around to hear him - is he still wrong?

If a deaf person swears, does his mother wash his hands with soap?

Is there another word for synonym?

Isn't it a bit unnerving that doctors call what they do "practice"?

If a turtle doesn't have a shell, is he homeless or naked?

Can vegetarians eat animal crackers?

Why do they put Braille on the drive-through bank machines?

Why did kamikaze pilots wear helmets?

What was the best thing before sliced bread?

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#### The Necessity of CW

Emil Pocock, W3EP

The movement away from Morse code is not a new trend in the amateur service. As long ago as 1947, the World Administrative Radio Conference waived the inter-national code proficiency requirement for radio operators on frequencies above 1,000 MHz. By 1979 the boundary had been lowered to 30 MHz. The FCC followed other countries and started issuing its first "codeless" Technician license in 1991. That license now provides thousands of US amateurs with access to the bands above 50 Mhz without any knowledge of Morse code.

VHF and UHF activity is now dominated by FM voice, FM-repeater and digital techniques, including packet repeaters. These modes are designed almost exclusively for easy, highly reliable, local communications. Morse code plays no role in these activities, save for the occasional CW identification heard of repeater stations. Indeed, most VHF and UHF radios are not even designed for CW, even if the operators were proficient in Morse code! The reality is that Morse code is simply not needed for the vast majority of communications found in the current world above 50 MHz.

#### The World Above 50 Mhz

Even if most VHF and UHF work is over routine, local paths, there are many other activities on the bands above 50 Mhz that are not so routine. This column has been devoted to encouraging and chronicling those activities for more than 50 years now. Much of it has involved testing and pushing the limits of communication on the pioneer frontiers of the radio spectrum, whether through technical innovations,



better understanding of propagation mechanisms or more refined operating techniques.

Much of that effort has been to extend the distance over which two-way contacts at VHF and higher could be made. Sixty years ago, the VHF bands were dubbed good only for line-of-sight work. Amateurs took up the challenge and discovered several unsuspected means to extend VHF propagation well beyond the line of sight, including sporadic E, aurora, meteor scatter and tropospheric ducting. Now it is common to read about international contacts on the VHF and UHF bands. Morse code helped make these achievements possible and still does.

### **Weak Signal DX**

Working on the frontiers of propagation has often meant dealing with weak signals. Higher locations, bigger antennas, greater power and more sensitive receivers have all been used to push VHF communications to its limits, but there is another trick. Morse code is by far the simplest way to improve station performance, and it is the one consistently used from the very earliest years. Given the same operating conditions, messages transmitted by Morse Code or CW (continuous wave, if you have forgotten!) signals are always more effective than modes such as AM, FM, or SSB.

The reason is easy to understand. CW signals require only a very narrow receiver passband-100 Hz or even less. This means a great deal less noise gets passed with the desired signal. In contrast, SSB requires at least a 1900 Hz bandwidth for good intelligibility, and with the wider passband comes a great deal of unwanted noise that can bury a weak signal. FM and packet use even wider bandwidths. The apparent gain in signal strength simply by going from SSB to CW can be as much as 12 dB (2 S-units), and considerably more when going from FM. The human ear and brain also seem better able to decipher Morse code signals hovering near the noise level than voice signals.

CW is generally necessary for effective communications on the bands above 50 Mhz when stations are close to their working limits and signals are near the noise level. This can be true for the day-to-day DXer, the microwave experimenter, the EMEer and the VHF contester, among others. All rely on CW to make their stations as effective as possible. Most VHF, UHF, microwave distance records, whatever the means of propagation, were probably made using CW. This should not be surprising, given the great advantage of Morse code over other transmitting modes.

Serious VHF operators are accustomed to switching back and forth between SSB and CW, as conditions demand. It is not unusual for a VHF operator to ask another station to change over to CW in order to complete a contact. Perhaps nothing is more frustration than to answer a weak SSB station with CW, only to hear him come back with "sorry, I cannot copy code." These same operators are also left out of some common propagation modes and VHF activities that can only be used effectively with CW.

### **Auroral and FAI**

It is difficult, usually nearly impossible, to make contact via Auroral scatter or field aligned irregularities by any means save CW, especially at 144 Mhz and higher. Both modes impose Doppler shifts that considerably broaden and distort the resulting signals. The human voice becomes garbled and no receiver and no digital filtering can straighten it out (at least yet!). With care, SSB may be intelligible on 50 Mhz and rarely on 144 Mhz, but CW is vastly superior and used almost exclusively. The distortion is so great at 222 and 432 Mhz that any mode but CW is useless. Modest stations can provide great fun with aurora, but it demands using CW.

### **EME**

The technical difficulties in building a station to send signals to the Moon and detect the reflected echoes are so great that even the best equipped stations must cope with incredibly weak signals. That means using CW and narrow bandwidths to pull the weakest signals from the background noise. Even so, modest stations-even those with single Yagis-can and do make EME contacts. That is great fun and does not require special preparation, but of course (and you have guessed it by now) it does require using CW.

It is true that a handful of the world's best equipped stations can make SSB EME contacts with similarly well equipped stations, but this is exceptional. CW is the rule in the world of moon bounce, and even the best stations must make the vast majority of their contacts on CW.

### **The International Six-Meter Band**

Sporadic E, auroral E and especially F2-layer propagation, can support strong 6-meter signals over thousands of miles. Modest stations using SSB and even FM voice modes can make international contacts under favorable conditions, and often do. The problem is that conditions are often not favorable. DX on this band is often made under marginal circumstances, and the most spectacular successes are almost always on CW.

During the past several summers, for example, when sporadic-E made transatlantic contact possible, most contacts were made on CW. From time to time, West Coast operators have reported 200 KHz of the 6-meter band crammed with eager Japanese stations-almost all on CW. You can bet with the upturn in Cycle 23, nearly all the unusual and unique F2 DX contacts will be made on CW.

Morse code is also favored by many foreign operators for another reason-the language problem. They find it far easier and often quicker to make CW contacts using standard abbreviations and Q-signals than to struggle with English. Few Americans have the skills to make contacts in more than one or two other languages, much less a dozen or more! While English is a widely spoken second language in many areas of the world, we cannot expect that every foreign amateur has the skill or inclination to use English.

### **Getting the Most out of the World Above 50 Mhz**

There is little question that the vast majority of the inhabitants of the world above 50 Mhz have no use or need



for CW. Their requirements are quite modest and can be met perfectly using low-power FM and digital stations. From time to time, a rare sporadic-E event or a great tropospheric duct may bring in distant and unwanted voices to a local repeater and give a hint of what is possible on the VHF bands. Nonetheless, if you want to get the most out of the world above 50 Mhz and participate in all the exciting and challenging activities reported each month, CW is a necessity. It is unlikely that any technological advance in the near future will change this basic situation.

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### **Earthquake! Training for the Big One at the California Specialized Training Institute**

By Sam Vigil, WA6NGH  
San Luis Obispo, California

HAMs have always been players in disaster recovery after California's earthquakes. This article describes the role that HAMs are playing at the California Specialized Training Institute (CSTI) as part of the intensive five-day Earthquake Management Course. Founded in 1971, CSTI is part of the California Governor's Office of Emergency Services (OES). Its primary purpose is to train public safety professionals in criminal justice, emergency management and hazardous materials response. I was a student in the January 1997 earthquake course, and I also participated as a ham radio volunteer in the October 1997 session.

The CSTI course covers California's Standardized Emergency Management System (SEMS), the command and control system used by OES for disaster management. Other subjects include geology, disaster assessment, mutual aid, sustained operations management, and emergency operations center (EOC) organization and functions. On the fourth day, the EOC Exercise is conducted. On the last day, the exercise is critiqued.

In the class I attended in Culver City, California we had 20 students, including the Fire Chief, Michael Thompson, KF6FMK, as well as Dick Heineman, KM6GN, from the Culver City ARES. (Culver City has ham rigs in all fire stations and sponsors ham radio classes.) Another ham, Robert O'Hara, W6PKF, a San Diego County Sheriff Department sergeant, was also a student. In all, 62 students from across the state were in attendance.

### **Preparing for the Emergency Operations Center Exercise**

The highlight of the course is the realistic EOC Exercise. Students are assigned positions in mythical "Santa Luisa," a coastal city of 100,000 located in central California. The city has a nuclear power plant, a 100-year-old dam perched above the city, a major rail yard with potential hazardous materials, two rivers, and only two major highways-both subject to flooding and earthquake damage! Over the years that the course has been offered, every possible calamity known to man has befallen poor Santa Luisa. My role in the exercise was as a communications assistant for the

Public Works department, since I'm a ham and a professor of civil and environmental engineering.

A part of our pre-exercise effort was reviewing the communications plan. In the EOC, each department (police, fire, and public works) had two or more phones that were directly connected to their respective dispatchers located in the Simulations Room where CSTI staff would be generating the problems for the Exercise. The Police and Fire Departments also had dedicated VHF hand-helds to communicate with their dispatchers.

On Thursday morning, the "earthquake" hit and the exercise was on!

### **The Exercise**

As I took up my position in the EOC, total pandemonium was erupting around me. Every phone was ringing, and every H-T was squawking. CSTI staff was deliberately feeding us conflicting information from the nearby Simulations Room. In the first 30 minutes of the exercise, I had to deal with 10 incidents including hazardous material spills, fires, and even sewer line breaks. I received a first-hand lesson in one of the most worrisome aspects of disaster communication-confusion. In many instances, police, fire, and public works received simultaneous reports of the same incident. The purpose of the EOC structure is to sort out the chaos.

Santa Luisa "suffered" grievously, with 306 major injuries, 136 deaths, and 71 million dollars of property damage. In one typical incident, structural damage to the aging dam above the city required a controlled release of water, causing partial flooding of the city. The CSTI staff made life interesting for us by causing a commuter train derailment at the same time. Several imaginary commuters drowned before fire department and public works crews could rescue them.

### **The Role of Amateur Radio in the January 1997 Exercise**

Amateur Radio participants for the exercise were provided by the San Luis Obispo Emergency Communications Council (SLOECC), the San Luis Obispo County ARES/RACES organization. SLOECC volunteers operated both VHF voice and packet links. The voice link was located in a corner of the EOC, and was used to simulate communications with outside agencies such as the Red Cross.

Unfortunately, ham radio was under-utilized. In the excitement of the exercise, the HAMs in the corner were not noticed and few messages were passed. Although there was a simulated communications blackout as part of the exercise, it only lasted a few minutes; not long enough to encourage exercise participants to look for alternative communications. Although Amateur Radio was mentioned numerous times in the class prior to the exercise, our capabilities were not fully explained. Several exercise participants were not aware that packet radio could be used to sent computer-formatted text. Others were not aware that HAMs have long-haul HF SSB capabilities as well as short range VHF.



### Ham Role Strengthened for Next Exercise

I discussed the problem of ham underutilization with Richard Robles, the Earthquake Management Course Director and recommended that a new course module on Amateur Radio be developed which could be taught by local operators as part of the course. Accordingly, a ham radio briefing was given as part of the October 1997 course by SLOECC member, Bob Alberti, W6TTX. Bob also distributed a recently completed SLOECC brochure, which describes ham radio and RACES and ARES capabilities.

The briefing was a success!!! Ham traffic increased ten-fold over the January 1997 exercise. More importantly, course participants, all public safety and government personnel, now have a better understanding of what ham radio can do for them in a real emergency.

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### Activating Alaska's Barren Islands

by John Reisenauer, Jr. NL7TB

The place was a lush island off southern Alaska; the time July 4th, 1996. Some things are just not meant to be, but the N6IV/NL7TB second attempt to activate the Barren Islands was! Here we are again one year later loading our gear on the M/V Obsession (30 ft. 6 passenger) in Homer at the southern tip of Alaska's Kenai Peninsula. Why? The Barren Islands remain unactivated for the Islands on the Air (IOTA) program. Almost ever Alaskan I've talked to who knows anything about the Barren Islands has said "you don't want to go there". In name only, the Barren Islands don't sound like a very nice place to visit do they? We were embarking on a voyage- a voyage not only for Amateur Radio but for discovery as well. At 6:00 am on July 4th we slowly slipped out of port. The pungent odor of fish and saltwater was a welcomed smell.

### About the Islands

Alaska's Barren Islands (58.55N 152.10W), located 200 miles south of Anchorage near the entrance to Cook Inlet, were named in 1778 for their naked appearance by Captain James Cook. It's no exaggeration to say that Capt. Cook's shadow still lies across the vast Pacific Ocean, more than 200 years after he last traversed it. The seven named islands of the Barren Islands group (Ushagat, Carl, Nord, Sud, Sugarloaf, West Amatuli and East Amatuli) total approximately 10,00 acres of land and vary in size from 25-acre Carl Island to 7,000-acre Ushagat Island. Ushagat is the driest and westernmost island of the Ushagat rises to nearly 2,000 feet in elevation and is the only island with trees except for a few wind-blown Sitka spruce on lush East Amatuli Island. Ushagat is truly a storybook paradise with 23 miles of coastline, several lakes, trees, lagoons, marshes and miles of sparkling beaches. Only recently has Ushagat Island felt the presence of man after a fifty-year solitude when fox farming was abandoned in 1939. The introduction of Arctic foxes to

Ushagat in 1928 for fur farming evidently has severely reduced the islands bird numbers.

Ushagat is largely covered by alpine tundra plants, Dwarf birch and willow trees along its streams. Dolly Varden, delicious-eating northern game fish, inhabit the lagoon on the north side of the island into which several streams flow. Over 60 species of birds have been recorded in the Barrens during summer. Some 1,000 Steller Sea Lions breed on Sugarloaf Island, home to most of the island groups sea loin population. Limited exploration has taken place on Ushagat's sibling islands. The Barrens are notorious for their extreme tide rips and treacherous seas. The islands experience 20 foot tidal ranges and are often raked by erratic, extreme winds. Average summer temperatures range from 45 degrees at night to 60 degrees during the day. Darkness in June and July is very brief since the islands lie at 59 degrees North latitude. The frequent bad weather is compensated by the absence of mosquitoes, flies and other biting insects! Fierce storms with raging seas surely lend adventure to these wild islands, and this factor along with precipitous terrain and isolation have largely protected them from human incursion. There are no facilities here and a limited number of visitors are permitted access to this Alaskan Maritime National Wildlife Refuge..

### LAND AHOY...BARREN ISLANDS

Camping 60 miles out in the beautiful but often hostile Gulf of Alaska on a remote "patch of land" in cool temperatures and fierce gale winds wouldn't be everyone's cup-of-tea. A land where the weather obeys a law of its own. The M/V Obsession drifted slowly and deliberately at my request before lowering the skiff, offering us our first view of Nord and Ushagat Island. It was 8:30 a.m., the weather was beautiful. Calm seas, warm temperatures and blue skies reigned "out here". While discussing landing strategy with Captain Larry, I was able to take some awesome photos and video. Truly a photographers paradise! Nord was but a mere pointed rock in the emerald sea compared to the mighty lush green giant, Ushagat Island. Nord Island is a 90 acre rocky 700 foot tall island containing the greatest seabird density of any of the Barrens. It's hard to imagine such a paradise and only two and one-half hours by boat from Homer. It was spellbinding! The skiff slammed against the sandy beach of Ushagat's north side- we had made it! I startled Captain Larry by leaping in to the clear knee-deep blue water. He said "you didn't have to do that". I thought to myself "you don't understand.....this must be the island all Amateur Radio operators see in the flicker of fireplace flames on cold winter evenings spent planning the dream expedition"!

Imagine our own private island in the far North Pacific. For the next three days all the comforts of home would be replaced by tents, sleeping bags, piles of radio equipment, canned food, unshaven faces from two grouchy middle-aged men, wind, rain and pileups-what more could Ham want? We chose the north side of Ushagat Island, on the isthmus west of Table Mountain for our operations because of the ease in landing and the fact it was surrounded



by dense stands of Sitka spruce trees which convey considerable protection from the high winds that frequent the islands. Table Mountain is on the Eastern extremity of Ushagat Island and is the only named reference on any maps I've see for the Barrens. It took us about five hours to come up on frequency, three hours longer than planned because we landed at low tide. Low tide meant carrying all the gear about three city blocks through sand, rocks and then over massive piles of driftwood debris up a hill to a safe spot above the high tide mark!

#### **QRZed de NL7TB PORTABLE BARREN ISLANDS**

It was July 4th, what an Independence Day to remember, at 2139Z when Rick, N6IV, and I came on 14.260 signing as "NL7TB/Barren Islands". What an incredible feeling to turn on the rig to hear many stations calling NL7TB! We call John WD8MGQ, first to report our location and give a brief description of our landing. John is a member of the BOD for the US Islands Awards Program and maintains the island list and assigns island numbers. We then commenced to work our other sponsors; N6AWD, W4BAA, VE6VK, VE7IU, AA7AV, I1HYW, (then later KQ4YI, KA3UNQ AND KI7YO) before turning to the pileup. After working most of our sponsors, we easily qualified Ushagat Island for IOTA in about fifty minutes! Our first five countries worked to qualify (WD8MGQ, VY1AU, I1HYW, F9GL and VK3AJJ) only took 20 minutes. Pileups flared and subsided numerous times. Chuck, WL7EM, on Kodiak Island relayed a weather report to us..."Button up the hatches boys, Comm station Kodiak reporting severe weather and winds in excess of 55 mph for your vicinity...do not put the tent doors facing the ocean...good luck, you'll need it..." We were as prepared as we'd ever be. The tents ere double staked and had heavy tarps over them. For added protection, we piled driftwood around the tents which later proved to be a smart idea! We never knew what to expect from hour to hour. We experienced three different weather fronts on the second day, each with a separate lull in between before all hell would break loose again! The first two nights out were the roughest. Imagine a 35 amp power supply being blown off our operating table? It happened. The winds blew violently, sometimes from all directions at once. The wind force was like a run-a-way freight train slamming into our tent. We got little sleep because we had to hold on to the top of the tent to keep it from caving in on us. Rick and took turns at "tarp patrol" when not operating. Our make shift tarp repairs (many) held out.

Our equipment included a TS-430S transceiver, AL-80A amp and an R-7000 vertical antenna. Often times we peered out the tent to see the R-7000 forced in a forty-five degree angle by the fierce gale winds. We just knew the vertical would fold. It didn't! The mechanical strength of the R-7000 and the electrical properties exhibited (it was like having a Yagi in each direction!) surely make this a DXpedition winner. We "temporarily" lost our metal mast on the beach so made do with mounting the vertical on a twelve

foot tall piece of driftwood firmly planted 2 feet deep in the muskeg. The next morning I found the mast (right where I left it!) but saw no reason to change it now. At 1700Z we worked Roger, G3KMA (IOTA Director), and received hearty congratulations for our efforts and the new IOTA number for the Barren Island, NA-206! We already had received AK-095S for the USI number. Imagine the feeling of being the very first group of HAMs to operate from this scenic but treacherous land-it was incredible. Some of our more interesting contacts were with: LZ2AY/mm (24N 174W); N8DMI/am (over Chili); UR5WCW (Vlad who assisted us with lists for Europe and who did the same for us last summer on NA-197); RO/UR8LV (77N 104e), VK6ISL (Mal was also on a new IOTA!), VE6ISL and VE6VK/mm VE7. This is not a trip for anyone seeking amenities and the company of lots of people. Come to think of it, this is not a trip for the sane!!!

#### **BEACHCOMBING, HIKING and PHOTOGRAPHY**

This trip was too important for me to let Mother Nature confine me to the tent. The weather conditions were so bad much of the time I was rarely able to reach any of the high ridges that shelter Ushagat's north side due to extreme winds and obstruction by fog. While Nord Island's west side was in full view from our camp, Sud Island is a 300 acre grassy island rising to about 100 feet. The north side of Sud was a bid sandy beach similar to Ushagat. I was more intrigued by the spell of the Barrens now than ever. We came to enjoy the roar of the pounding surf on the south side of Ushagat fully knowing that we would soon experience the crashing, violent waves in front of our camp. I beachcombed in between storms for several hours and shot 10 rolls of film besides an hour of video. The changing of the tides, at either 6 a.m. or 6 p.m., usually was accompanied by high winds then rain. On the morning of the third day out, I discovered fresh fox tracks on the beach at low tide. Seagull feathers and bones were scattered about on the north rock cliffs near our camp. Later I would notify the Alaska NWR folks that fox still exist here. Several hundred feet of large and small diameter rope entangled with fishing nets and dozens of large buoys were found washed up on the beach. Mother Nature sure caused added expenses to some fishermen. Ushagat's most striking features were its crystal clear water, blue lagoons, gray sandy beaches, gigantic rocks guarding her coastline and the brilliant red sunrise on our first morning out. Even when weather conditions were violent, Ushagat exhibited both a calmness and ruggedness that I'd never seen anywhere before.

#### **ALL GOOD THINGS MUST END**

We made over 1400 contacts with 60 countries in 50 hours of operating. Contacts outside North America totaled 865. We did what we said we would !! The Barren Islands are truly a place for explorers and HAMs alike-Amateur Radio has finally left its mark on them. Rick and I shared the warm feeling of giving something back to our hobby. Amateur Radio was our only link to the outside world, it sure came in handy to coordinate our exit off the island.



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went to see Boris Parachute jump at Ampuria, and we made plans for skin-diving and Maritime Mobile expeditions. Yet, four years ago, the doctors gave him just a few months to live. Thanks to a great poker hand, in which he had the secret, the only doctor in the world capable of doing the operations successfully did it.

There was a sort of irony in all his bravery: he didn't die of cancer but from a series of falls on his boat. On the day of his death, by chance I found myself 50 km from Serge's house trying to telephone him to tell him that I would help him defend himself from pirates on the high seas!

Serge was important in my life and the lives of radio amateurs in general since he was a member of the central committee of the USZKA and also the officer responsible for relations with the IARU; he was active for a very long-time and he was a most honorable member. Life is made such that some chaps, for which we sometimes ignore the other aspects of their life, are always there at the most pivotal moments of the other person's life. Serge I found several times in this situation for me. His determination and his force in life remain always an example. When he maliciously tapped the knot of the rope hanging from the ceiling on his boat, he wanted to say: "It is me; I am the captain of this boat!" And he remained the captain until his death, with all his qualities and all his faults. I salute my friend, I liked him so well...and Serge, if you meet Him, try to intervene to see that we are left with some open frequencies for peaceful ATV.

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#### **Upcoming Emergency Drill** by Lil Marvin NL7DL

There will be an emergency drill conducted by the Municipality of Anchorage Emergency Office Coordinator. The drill will be held on Friday April 30th, the exact start time being currently unknown. The city is requesting amateur radio participation as has been done for the past several years. Details of the drill are currently unknown and many details will not be made known until just after the drill begins. Hams will be needed at the EOC office, Alaska Regional Hospital, Providence Hospital, the Alaska Native Medical Center, Our Lady of Compassion Care Center, Mary

Conrad Center, city buses (which will be used to transport "victims"), incident command center (the location of which is currently unknown), Red Cross (they would like to have 14 HAMS if possible), and more HAMS will probably be needed at other locations. You do not need to be a member of ARES in order to participate in this drill, so we would welcome any HAMS who would like to volunteer as communicators. You will need a 2-meter rig, and a decent antenna. A spare battery would also be nice but not absolutely required if your battery is charged. If you can participate, please contact Lil Marvin NL7DL at 277-6741 or Email her at [rlment@alaska.net](mailto:rlment@alaska.net). Thanks to all who can help!

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#### **Telephone SCAMs an email account**

I recently received an e-mail from Lt. Van Steenburgh (XPM) asking about a possible telephone scam. After checking with one of my "contacts" at the 12th CS, this is what I found out.

An individual will call a house identifying himself as an AT&T Service Technician that was running a test on the telephone lines. He stated that to complete the test the homeowner should touch nine (9), zero (0), pound sign (#) and hang up.

Mrs. Lee Vinson of the 12th CS Telephone Switchboard Operations informed me that by pushing 90# you end up giving the individual that called you access to your telephone line which allows them to place a long distance telephone call, with the charge appearing on your telephone bill. We were further informed that this scam has been originating from many of the local jails/prisons.

Now while Randolph AFB has a security system installed to block such attempts on government lines, your home telephone line is not safe. If you should received such a call, just ask the caller for their name and number and tell them that you will call them back after you check with the local phone company. Odds are they will hang up right away.



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Bulk Rate  
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Anchorage, AK  
Permit No. 223

Roger Hansen KL7HFQ L036  
POB 520343  
Big Lake AK 99652-0343



WHAT COULD THE CIRCUIT BELOW USED FOR ?

USING THE LEAST NUMBER OF PARTS

WHAT CAN YOU BUILD TO REPLACE THE CIRCUIT BELOW

WHAT IS THE EASIEST WAY TO CONTROL DELAY ?

REQUIRMENTS:

LOAD UP TO 4 AMPS INDUCTIVE

VARIABLE DELAY

OPERATING VOLTAGE + 3 VOLTS -> 18 VOLTS DC

